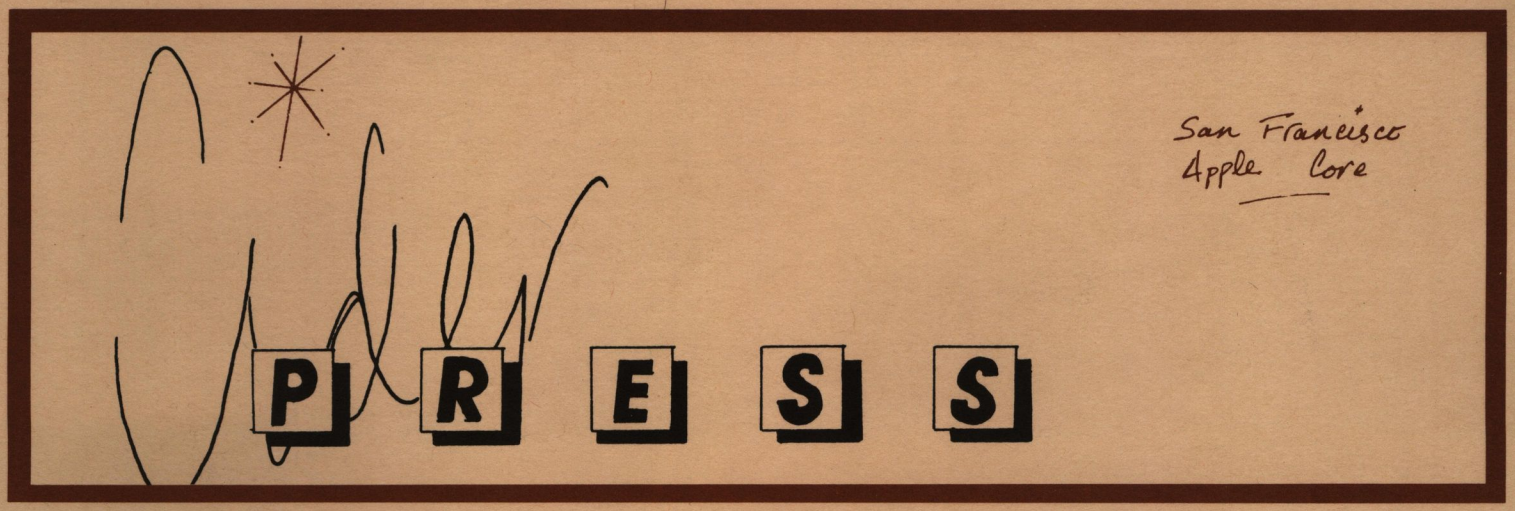

San Francisco Apple Core

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GENERAL MEETINGS
JULY 9
AUG 20

JULY, 1983

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That's Why We're So Good At It!

NEW

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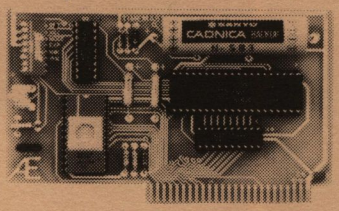
Finally, a clock that does it ALL!



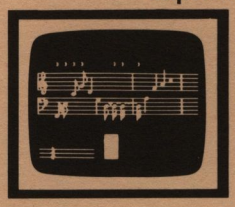
- Designed in 1983 using I.C. technologies that simply did not exist when most other Apple clocks were designed.
- Just plug it in and your programs can read the year, month, date, day, and time — down to 1 millisecond!
- Powerful 2K ROM driver — No clock could be easier to use.
- Full emulation of most other clocks, including Mountain Hardware's Appleclock (but you'll like the TIMEMASTER mode better).
- Compatible with all of Apple's languages, CP/M and PASCAL software on disk.
- Eight software controlled interrupts so you can execute two programs at the same time. (Many examples are included)
- On board timer lets you time any interval up to 48 days long down to the nearest millisecond.

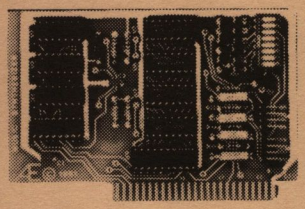
The TIMEMASTER includes a disk with some really fantastic time oriented programs (over 25) plus a DOS dater so it will automatically add the date when disk files are created or modified. This disk is over a $200.00 value alone — we give the software others sell. All software packages for business, data base management and communications are made to read the TIMEMASTER.

If you want the most powerful and the easiest to use clock for your Apple, you want a TIMEMASTER.

PRICE $129.00

Super Music Synthesizer



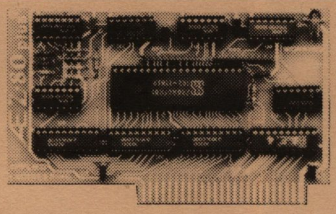


- Complete 16 voice music synthesizer on one card. Just plug it into your Apple, connect the audio cable (supplied) to your stereo, boot the disk supplied and you are ready to input and play songs.
- It's easy to program music with our compose software. You will start right away at inputting your favorite songs. The Hi-Res screen shows what you have entered in standard sheet music format.
- Now with new improved software for the easiest and fastest music input system available anywhere.
- We give you lots of software. In addition to Compose and Play programs, the disk is filled with over 30 songs ready to play.
- Easy to program in Basic to generate complex sound effects. Now your games can have explosions, phaser zaps, train whistles, death cries. You name it, this card can do it.
- Four white noise generators which are great for sound effects.
- Plays music in true stereo as well as true discrete quadraphonic.
- Full control of attack, volume, decay, sustain and release.
- Will play songs written for ALF synthesizer (ALF software will not take advantage of all the features of this board. Their software sounds the same in our synthesizer.)
- Automatic shutoff on power-up or if reset is pushed.
- Many many more features.

PRICE $159.00

NEW

Z-80 PLUS!



- An on-card PROM eliminates many I.C.'s for a cooler, less power consuming board. (We use the Z-80A at a fast 3.58 MHZ)
- Does EVERYTHING the other Z-80 boards do, plus Z-80 interrupts.
- All new 1983 design incorporates the latest in I.C. technologies.
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- TOTALLY compatible with ALL CP/M software.
- Executes the full Z-80 and 8080 instruction set.
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The Z-80 PLUS turns your Apple into a CP/M based computer. This means you can access the largest body of software in existence. Two computers in one and the advantages of both, all at an unbelievably low price.

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PRICE $139.00

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- 8 Channels
- 8 Bit Resolution
- On Board Memory
- Fast Conversion (.078 ms per channel)
- Eliminates the Need to Wait for A/D Conversion (just PEEK at data)
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The analog to digital conversion takes place on a continuous, channel sequencing basis. Data is automatically transferred to on board memory at the end of each conversion. No A/D converter could be easier to use.

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Information on temperature sensors is given in manual.

The user connector has +12 and -12 volts on it so you can power your sensors.

Accuracy 0.3% Input Resistance 20K Ohms Typ

A few applications may include monitoring and control of ● flow ● temperature ● humidity ● wind speed ● wind direction ● light intensity ● pressure ● RPM ● storage oscilloscope ● soil moisture and many more.

We also manufacture a 16 channel digital input/output board for control applications.

PRICE $129.00

NEW

IIe Only: 80 Column, 64K RAM Card

- Expand your Apple IIe to 128K memory.
- Provides an 80 column text display.
- TOTALLY compatible with ALL Apple software and languages, there are NO exceptions.
- Automatically expands VisiCalc to 95K storage. In 80 columns!
- COMPLETE documentation included. (We don't make you refer to the Apple manual as others do.)
- Uses the same commands as the Apple 80 column board.
- Incorporates the latest high speed, low power I.C. technologies.
- Plugs into the Apple IIe expansion slot.
- Simply the best expansion card for your Apple IIe at any price, offering you phenomenal performance at a very nominal price.

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CIDER PRESS

REM Summer is here. That represents different things to each of us. Can we take the computer camping with us? How long will it run off the car battery? I thought we were going to spend our vacation together. Is there some way to disconnect the speaker when they play those games? Does the air-conditioner cause power surges and transient spikes? When am I going to be able to use the computer?

I don't know that we can answer these questions in the *Cider Press* but if you would care to share a tale or two with us about the computer in your life, give us a call and we will arrange ghost writing if you are shy or by-line credit if you are not. Remember, the days are getting shorter. Happy summer!

An IC counselor is a friend when the chips are down.

- ed.

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Letters

Dear Cider Press:

In response to your plea for suggestions as to the type of material the members would like to see in *Cider Press* each month, I would respectfully suggest that you consider starting a "Letters to the Editor" column, ala Open Discussion in *Softalk*. I belong to seven user groups around the nation for the primary purpose of reading the newsletters of the clubs. In addition, I regularly read some ten computer related magazines.

The first thing I read or look for in each of these publications is the "letters" column. I especially like the "Open Forum" format of *Softalk* because that publication allows continuing discussion between readers. The problem that a magazine like *Softalk* has is the very long lagtime between one letter and a responding letter. I feel a publication like yours might be able to shorten that lagtime and thus make such "discussions in print" more timely and lively.

I realize that much of the one-on-one discussion between club members goes on during meetings, but for us "members-in-absentia", a letters column would bring us into closer contact with the rest of the membership.

Thank you very much for a fine magazine. The next time I am in the Bay area, I will plan to attend a meeting.

Sincerely,
Thomas E. Militello, M.D.
Rancho Palos Verdes, CA

Apple On Stage

Code Breaker, an award winning futuristic adventure about the difficult process of growing up even in a society where technology has vastly simplified the externals of life, is now showing.

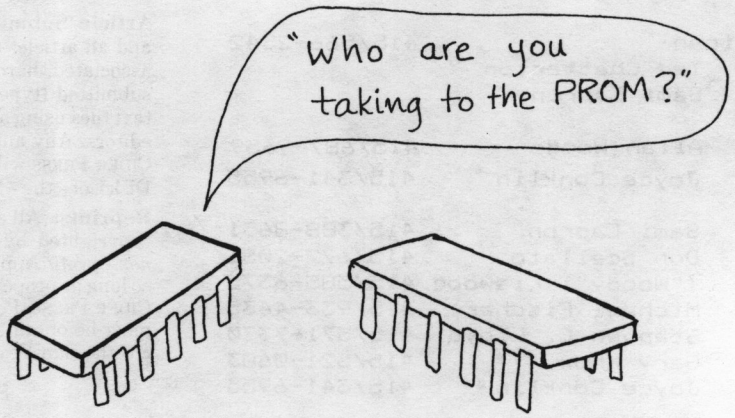
The play, featuring an Apple II[computer, runs through July 30 at the McBean Theater in the San Francisco Exploratorium.

When Bernice's friend Peter breaks the entry code to the Master Computer's Top Secret File and uncovers a long-forgotten world beyond their enclosed Orb, they set out to prove this world's existence. They are introduced to unique and wonderful objects (water, apples, a rabbit) but suffer reprisals from the Master Computer who is afraid that their knowledge will destroy the Orb's fragile civilization.

Forced to take ever-greater risks, they watch in dismay as the standards by which they have lived become meaningless, with loyalty turning to betrayal, friendship giving way to self-preservation, and duty replacing truth. But even as their world begins to crumble around them, they discover that it is they themselves who have the power to forge a new world in its place.

The staging portrays the Orb's technological sophistication -- especially with the prominent placement of the Apple II, programmed for communication between Ruby, the computer nanny, and the teenagers. Other special effects include a multi-dimensional sound system to wrap the theater in the audio environment of the Orb.

For tickets and information, call 776-4720.



June Meeting

Mike started out with a reminder of our format, the spectaculars we would observe, and the usual request for input from YOU! Don-the-doer fired off his latest salvo: On sale - IAC dbase, SFAC utilities, and a disc reminiscent of the old DOMs title 83#2, just lots of neat stuff - games, utilities, education, and ?. Don't forget the program contest -- anything and every thing. Sales went back upstairs again to room 370 AND super added attraction: THE KIDDIE KORNER! So come on down to the meetings, junior gamers...winner takes all.

After a brief introduction to the up-coming meetings, Mike turned us over to our first spectacular demonstration, but not until the sad news that THINK TANK is postponed.

With creator Steve Dompier at the controls we were transfered to the world of the ILLUSTRATOR from ISLAND GRAPHICS. There is no way that I am going to be able to communicate what happened for the next hour. Using this system and either an Apple tablet or the Koala (demo'ed) you can do far more art than you ever wildly dreamed of. Sort of LISA style menu driven (you use your finger instead of a mouse) you pick your need from an idiot list and do it ALL with your finger. I mean ALL. You know it's just draw and paint for starters . . .

The Koala with mini-Illustrator is only $125. The big version of Illustrator for either Koala or Apple tablet is $149+. I heard plenty of testimonials!

The age of the super highspeed super simple data base is indeed here in the form of CONTACTdb. This is a menu driven super quick helpful data base which is easy to follow and has many accesses to the file with a variety of formats for listings and printing.

Mike Iverson was back again with his latest version of the GLOSSARYONE for the IIe and FX. See the June Cider Press for a plug.

And our old friend John Leininger is still making those of us with IIe's or II with 80 col and 64K the most spectacular offer of INCREDIBLE JACK (list $180) for only $75 (plus shipping). This incredible program (which uses the speed and economy of PASCAL) is a word processor, data base, and calculator! John Leininger, JPL Associates, 18 Sequoia Way, San Francisco, CA 94127, 415 584-9153. (You don't need PASCAL to run it, but the shift key modification is very handy.)

Announcements: Quite a number of requests to buy and offers to sell this and that were made. 1. There is strong interest in statistical packages and how to run them (are you there Woody?). 2. Anyone out there interested in some stock market exchange? 3. Would you like to get together with some other computer artists? 4. How would you like to work on a computer reference manual? -- If any of these areas turn you on, drop a line to the Cider Press along with your 'phone number so these people can contact you.

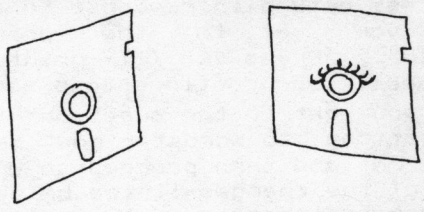
Dudley is operating the library and journal exchange.

New, new, new -- interest groups: East Bay Visicalc and Peninsula CP/M.

We had a visit from the lovely Candice of AMATA, the children training center for radio, video, stage, etc. meets on the second floor of this building. But wait! Be sure to catch their production CODE BREAKER at the McBean theatre in the Exploratorium, Palace of Fine Arts, Panama-Pacific Exposition grounds July 8 through July 30; because the star (actually the villian) of the play will be an APPLE COMPUTER! (AMATA is Academy of Media And Theatre Arts.)

Celebrities (old timers): Eaglebeek and Cosmic Kareena (Larry and Karen Weiss) with son Adam dropped by after a long absence. Karen was the 2nd VP of our club. They are active in the computer business, software and software reviews out of their Vacaville home. (Yes, that is the correct spelling of Eaglebeek and Cosmic Kareena, according to old issues of the Cider Press.)

fig 1.



disk diskette

Customizing WordStar

(C) 1983 by Michael Fischer

Wordstar is a very useful CP/M based word-processor. The main problem when using it with an Epson MX-80 printer is an inability to send printer control codes to use such Epson features as double-print, superscript, compressed and expanded printing, italics, and solid underlining. (Of course superscript and solid underlining is not available without the GRAFTRAX^{PLUS} chips.)

Entering Control-P while entering text in Wordstar sends you to the printer commands menu. From this menu you can enter any control character into the file, including Escape. Wordstar shows the characters preceeded by an "^" to indicate Control. And both the "^" and the main character delete with a single keystroke, showing Wordstar considers it a single characters. (Escape, by the way, is shown as "^[.")

Printer Control

Sending control characters to the printer in this way, however, doesn't set the control codes. Instead they merely print on the printer the way they appear on the screen.

It's possible, however, to make modifications to Wordstar to permit some of the printer control codes to be sent to the Epson. This requires using some of the print menu functions which an Epson doesn't have.

Modifying Wordstar is not as difficult as it sounds. Start by making a backup copy of your Wordstar program disk. If INSTALL.COM isn't present transfer it to that disk.

Use Install

Using the backup disk run INSTALL. Answer no to the normal install question, choose option "D" and enter WSU.COM as the file name (assuming that is the name given to your Wordstar program file).

Next press return in response to questions until you get to the printer-type selection. Press "C" (TTY printer which backspaces) and continue to press return until you get to the question "Are the modifications to Wordstar now complete?" Answer "N" and then proceed to enter some or all of the changes listed below. When done making changes enter a Ø as the location to be changed. The Install program will then leave you in Wordstar.

Where to Change

Wordstar provides 4 locations to install special control codes, called USR1, USR2, USR3 and USR4. They are used by entering Control-P and Q, W, E or R. In addition Wordstar's print menu permits you to set an alternate printer pitch (Control P plus A with Control P plus N to return to normal pitch. Pitch refers to the number of characters per inch.), switch ribbon color (Control P plus Y) and set super-scripts (Control P plus T).

The commands, when inserted into your Wordstar text file, send a series of command codes to your printer. The command codes have to be placed in a specific location in Wordstar. This is one of the functions of the Install program. You do this by first entering the number of bytes to be sent to the printer and then the actual codes. All this must be done in hexadecimal codes. Each location in Wordstar to be changed can be called by its name, followed by a colon.

Superscripts

To permit superscripts (GRAFTRAX^{PLUS} only) make the following changes:

ROLUP:	Ø3
ROLUP:+1	1B
ROLUP:+2	53
ROLUP:+3	ØØ
ROLDOW:	Ø2
ROLDOW:+1	1B
ROLDOW:+2	54

Condensed

To set alternate ptich to cause the printer to enter the condensed print mode make the following changes:

PALT:	Ø1
PALT:+1	ØF
PSTD:	Ø1
PSTD:+1	12

Double Wide

To set the change ribbon command to cause the printer to enter the double wide print mode make the following changes:

RIBBON:	Ø3
RIBBON:+1	1B
RIBBON:+2	57
RIBBON:+3	Ø1
RIBOFF:	Ø3
RIBOFF:+1	1B
RIBOFF:+2	57
RIBOFF:+3	ØØ

Italics

To make USER 1 (^PQ) turn on italics make the following changes:

USR1:	Ø2
USR1:+1	1B
USR1:+2	34

To make USER 2 (^PW) turn off italics make the following changes:

```
USR2:          Ø2
USR2:+1        1B
USR2:+2        35
```

Solid Underlining

To make USER 3 (^PE) turn on solid underlining make the following changes:

```
USR3:          Ø3
USR3:+1        1B
USR3:+2        2D
USR3:+3        Ø1
```

To make USER 4 (^PR) turn off solid underlining make the following changes:

```
USR4:          Ø3
USR4:+1        1B
USR4:+2        2D
USR4:+3        ØØ
```

Finally, if you want to make all the printing from Wordstar be in double print mode make the following changes:

```
PSINIT:        Ø2
PSINIT:+1      1B
PSINIT:+2      47
```

The end result of all these changes is:

```
Superscript toggle     - Ctrl P + T
Condensed on           - Ctrl P + A
Condensed off          - Ctrl P + N
Double wide toggle     - Ctrl P + Y
Italics on             - Ctrl P + Q
Italics off            - Ctrl P + W
Solid underlining on   - Ctrl P + E
Solid underlining off  - Ctrl P + R
```

```
########################################
#                                      #
#           AUTHORS WANTED             #
#                                      #
#  Share your experiences, Apple       #
#  programming hints,pascal tips,      #
#  software reviews. Send your         #
#  material to the Cider Press         #
#  Editor at the Clubhouse.....        #
#                                      #
########################################
```

Epson Salts

Dumping It

Part 2

(C) 1983 by Michael Fischer

Part 2 of a Series

[Note: This article assumes you read part 1 of Dumping It in the June *Cider Press*. If you haven't, this article will probably sound like gibberish. It may anyway.]

When we left last month we had a dandy little BASIC program which printed the text screen on your printer. Of course, it required a minor modification of every input or get statement in your program.

Now one of the reasons most of us bought a computer was to make things easier for us. (Remember that reason?) Well, this is one case where that can happen.

In order to make our program work without modifying the input statements we need to check each input response *before* Applesoft gets it. Fortunately there is an easy way to do this.

Switches and Hooks

In the Apple memory the keyboard input switch (known familiarly as KSW) is located at ram addresses 56 and 57 ($38 and $39). The location, according to the Apple Reference Manual (pp. 83-84) holds the address of the subroutine currently used for input. Since all ram addresses require two bytes, the low byte of the address is stored at location 56 ($38) (known as KSWL for Keyboard input SWitch Low) and the high byte is stored at location 57 ($38) (known as KSWH).

The normal input routine resides in the system monitor at location 64795 ($FD18). On normal system startup the value 253 ($FD) is stored in KSWH and 27 ($1B) is stored in KSWL.

KSWL and KSWH are also known as the "DOS input hooks." When DOS is booted it puts its own input address in place of the monitor address normally placed in KSW. The DOS input routine is located at address 40577 ($9E81) and essentially checks any input for a DOS command before passing it to the monitor input routine. This is explained in excruciating and obtuse detail at pp. 100-105 of the DOS Manual.

Check the Input

Well, all we need to do is put a routine which checks for a control P before the DOS routine. This is an essentially trivial task, but since it operates at the system monitor level it must be written in machine language.

Now HOLD ON! Machine language programming is not that complicated. Just sit down. Take a couple of deep breaths. And away we'll go. It really won't hurt -- much anyway.

Machines and Assemblers

Actually machine language is just a stream of bytes and very few people who are not 6502 microprocessors understand it. Machine language programs are usually written in assembly language and "translated" into machine language by a program called an assembler.

A machine language program does not contain line numbers. Each command is one to three bytes long and sits in a location in memory. A command consists of the command itself and the location in memory where the command is to operate.

An assembly language program, exclusive of comments and housekeeping material, contains one line for each machine language command. A line consists of four parts, not all of which need to be present in each line:

4 Part Line

1. A label (optional) which refers to the command location. Thus the assembly langugage equivalent of GOTO (which is JMP -- for JuMP) can either be JMP to a particular memory location or JMP to the labeled line in the assembly language listing. Part of the assembler's job is to translate that label to the correct memory location.

2. A command (often called an opcode -- short for operation code). This is a 3 letter abbreviation of a command. Again the assembler translates the command to a number understood by the 6502 processor.

3. An address which is the memory location upon which the command is to operate. Sometimes the command has an implied memory location in which case no address is given. The address can be an actual number or a label. If it is a label, the label needs to be defined as an address somewhere in the program.

4. A comment (optional) which is much like a REM statement in BASIC. However, even more so than in BASIC, comments are vital to understanding what is going on.

Setting the Hook

Resetting the KSW "hook" to point to our routine merely requires placing the address of our routine in KSWL and KSWH and then calling the DOS routine which reconnects DOS to the KSW hook. It is always necessary to reconnect DOS after playing with the KSW hook.

To do this in assembly language requires learning three commands. These are:

1. LDA (which stands for LoaD Accumulator) -- taking a number from memory and duplicating it in the accumulator. The accumulator is a special memory location in the 6502 microprocessor itself.

2. STA (which stands for STore Accumulator) -- duplicating the number in the accumulator in a particular memory location.

3. JMP (which stands for JuMP) -- this causes the 6502 microporcessor to get its next instruction from the address following the JMP command. It is similar to a BASIC GOTO command.

And Away We Go

The only other thing we need to know for now is that the label we have given to the program line beginning the routine that filters out the control-P is called "Routine."

The program to reset the hooks begins:

```
SETHOOKS LDA #<ROUTINE
```
Load the accumulator with the low-byte of the address of "ROUTINE." Notice the label on this line for easy reference later.

```
STA $38
```
Store that byte in KSWL.

```
LDA #>ROUTINE
STA $39
```
Load the accumulator with the high-byte of the address of ROUTINE and store it in KSWH.

```
JMP $3EA
```
Make the next instruction be the DOS routine which reconnects DOS. It is located at memory location 1002 ($3EA).

4 More Commands

Our checking routine requires learning 4 additional assembly language commands.

1. JSR (Jump to SubRoutine). This is similar to GOSUB in BASIC. The 6502 microprocessor goes to the routine at the address following the JSR and continues until it finds the end of the subroutine. It then returns from the subroutine to the main program and continues from there. But how does it know it has reached the end of the subroutine? Why, from the

2. RTS (ReTurn from Subroutine). This is just like the RETURN which shows the end of a BASIC subroutine and returns control back to the command following the calling command.

3. CMP (CoMPare the value in the accumulator with some other value).

4. BNE (Branch or goto some other location if difference between the accumulator and the other value does Not Equal zero).

Check It Out

So our checking routine begins:

```
ROUTINE JSR $FD18
```

The word "ROUTINE" is the label we have given this line. Its address is what is placed in KSW by the first part of this program. The JSR makes the machine go to the monitor subroutine which gets the value of the key pressed on input. At the return from the subroutine the accumulator will contain the ASCII value of the key pressed.

```
CMP #$90
```

Compare the accumulator value with the ASCII value for control-P. This number is 144 ($90).

```
BNE OUT
```

If control-P wasn't pressed get out of the filter routine.

```
JSR SCRNDUMP
```

If the value in the accumulator was equal to 144 ($90), then control-P was pushed. In that case the branch to OUT was not taken and the next command will be executed. This command will cause the 6502 microprocessor to perform the screendump routine.

```
OUT RTS
```

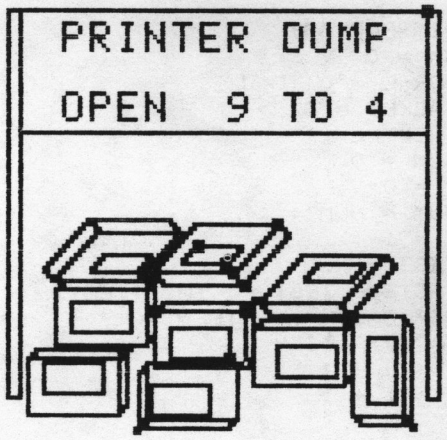
This is the command that was jumped to if control-P was not pressed. It is also reached after doing the screen dump if control-P was pressed. Since this entire program is the subroutine, the return is to the BASIC program which is running.

Next time we'll begin to look at the actual assembly language screen dump program itself, the one that is performed by the JSR Scrndump after examining some other aspects of assembly language programming used by this routine and some sources of information used in designing this routine.

Contest Notes

(c) by
Don Scellato

Not much more needs to be said about the Programming Contest except that the number of entries has been disappointingly low. The prizes and the rules have been discussed at length in the March, April, May, And June issues of the Cider Press. Entry Blanks were provided in the June issue. If you need any of this material, leave a message at the Clubhouse, and it will be sent to you. Don't forget that no program is too crude or too unsophisticated to enter. VisiCalc templates and templates from other spreadsheet program which run on the Apple may be entered. Games generated on game and graphics utilities programs may also be entered. The Contest closes officially on July 31, 1983. Entries must be postmarked by then or must be hand delivered to the Clubhouse by then. Don't be ashamed of the large or small programs you've written, enter them. Nobody loses as every entrant receives a one year free subscription to the Apple Orchard magazine and the big winners will receive one of the really great prizes mentioned in the last issue of the Cider Press. There is an Apple Disk II drive with a controller card, a Legend 128K RAM Card, and there are many really useful programs which were donated by the manufacturers as prizes. Don't miss out !! Enter a program before the end of the Contest.



B*A*S*I*C

Copyright (c) by Joyce Conklin, 1983

It's time to publish some answers to previously-given problems. I surely hope that Allan Woods has his program ready to insert in this article, because I haven't seen it, and I can't get one to work myself! (The original problem was to write a program which would print out the perfect numbers in a given range.)

This program mysteriously seems to work. As I tried to add the elegant enhancements I had concieved in my more lucid dreams, it became more and more apparent that the "S" in B.A.S.I.C. stands for "Spaghetti."

Using this program, my computer will grudgingly compute perfect numbers. It found four before dinner was ready. My Apple isn't really interested in perfect number programs, for when I tried to dress the code up, she wouldn't play. Good luck to you all. We know when it is time to move on.

-ed.

```
5  DIM FAC(30)
6 NUM = 0
9  FOR L = 0 TO J
10 FAC(L) = 0
12  NEXT L
15 SUM = 0
17 J = 0
20 NUM = NUM + 1
30 I = 1
40 TEST = NUM / I
50 FACTR = TEST -  INT (TEST)
60  IF FACTR > 0 THEN 90
70 FAC(J) = I
80 J = J + 1
90 I = I + 1
100  IF I >  = NUM THEN 300
110  GOTO 40
300  FOR K = 0 TO J - 1
310 SUM = SUM + FAC(K)
320  NEXT K
330  IF SUM >  < NUM THEN 9
340  PRINT NUM,"IS A PERFECT NUMBER"
350 FIN = FIN + 1
360  IF FIN = 3 THEN  END
370  GOTO 9
```

(CHANGE LINE 360 FOR MORE PERFECT NUMBERS)

. . . . .

The two problems from the McGettrick/Smith book should have been relatively easy for you to solve, IF you have been following the directions of the April column and planning/flowcharting BEFORE coding! I don't know why that is so difficult to get students to do - I just know that I, along with everyone else, used to code first and make the flowchart to match; now that I have reversed my thinking, I wonder how I ever got my programs to run using the other method!

Problem #1 requires that you have either READ/DATA or INPUT in order to have the numbers on which to operate. If you following the intoduction completely ("no loops") it would make an almost trivial program, as you would have to type RUN for each new data item, so let's at least use FOR...NEXT to get more than one result. Centimetres/100 = Metres, but of course the Apple will do the division leaving you with a decimal fraction. Therefore you will need to do the following:

i) READ the data item (in centimetres)
ii) Determine the number of metres
iii) Determine the number of centimetres left over
iv) Print out the answer

How about the following program?

```
10 FOR L = 1 TO 3
20   READ C1
30   M = INT(C1/100)
40   C = C1 - (M*100)
50     PRINT   M;"   METRES,   ";C;"
CENTIMETRES"
60 NEXT L
70 DATA 321, 56, 7895
99 END
```

Problem #2 requires a bit more thought about the formulas but it is still a straight-forward program. Since we have aready assigned the variable H to the height of the silo, let's use H1 for the number of hectares.

i) (B*L)/10000 = H1 (number of hectares)

ii) Volume of a silo = 3.14*R²*H (Let's use V for that variable)

iii) INT(C/V) will be the number of completely filled silos (Let's call that N)

iv) C - N*V will be the amount of left-over grain (in cubic metres - let's call that V1)

v) The height of the grain in the unfilled silo will be H2; the formula will be H2 = V1/(3.14*R²)

So, here we go:

```
10 READ B,L,C,R,H
20 DATA 150,400,50,13.5,25
30 H1 = B*L/10000
40 V = 3.14*R^2*H
50 N = INT(C/V)
60 V1 = C - N*V
70 H2 = V1/(3.14*R^2)
80 PRINT "THE FARMER CAN FILL ";N;
   " SILOS"
90  PRINT  "AND  HAVE  GRAIN";H2;"
METRES
   HIGH"
100 PRINT "IN THE REMAINING SILO."
999 END
```

. . . . .

The problem about the graphics plotting requires that you use a reference to the loop variable to define the value of X and Y in your plotting statements. Here is one way to do it; you can change the order of the plots if you want the lines to appear in a different order on the screen.

```
10 FOR L = 0 TO 39
20   PLOT L,L
30   PLOT L, 39-L
40   PLOT 0,L
50   PLOT 39,L
60   PLOT L,0
70   PLOT L,39
80 NEXT L
99 END
```

. . . . .

Some of my red-hot students came up with fascinating algorithms and other goodies in the semester-end problems which I assigned; they were good enough to share. The first was part of a problem which was to generated random addition problems and check for the answer, giving appropriate messages if the answer given by the user was wrong. One student developed an algorithm to determine the level of difficulty for the addition problem, by allowing the user to specify this level, which was the equivalent of specifying how many digits were to be in each number added.

```
10 REM DIFIICULTY LEVEL SUBROUTINE
20 REM BY ARNOLD SAY
30 REM 10 JUNE 1983
40 REM TRANSLATED FROM TRS-80 TO
APPLE
        BASIC BY JOYCE CONKLIN
100  INPUT  "WHAT LEVEL OF DIFFICULTY
DO
             YOU WANT (1 - 4)?";L$
105 IF L$ = "STOP" THEN END
110 A = VAL(L$)
120 ON A GOSUB 300,400,500,600
130  X = INT (RND(1) * (9*10^A)/10) +
Q
140  Y = INT (RND(1) * (9*10^A)/10) +
Q
150  RETURN: REM TO THE ORIGINAL
START
                  OF THE PROGRAM
300 Q = 1: RETURN
400 Q = 10: RETURN
500 Q = 100:RETURN
600 Q = 1000: RETURN
```

Line 120 will ensure that the numbers generated in lines 130 and 140 have the requested number of digits; otherwise, the RND function could generate any number from 0 to the requested maximum, giving some numbers that were short on digits. To use this in your program you could either renumber it to reside below all your program lines, or have line 5 say GOSUB 1000, and start your program at 1000. Notice that although you really were looking for a number input from the user, you asked for a string variable. This allows the user to type "STOP" when s/he gets tired of doing the program. If the input variable were L, typing "STOP" would cause the program to bomb.

. . . . .

Another problem was to have the user input two numbers (any two numbers); the program would add the two together and print the result BACKWARDS. When I was first given this problem, I was working on a Hewlett-Packard 2000 minicomputer, which does not have friendly string handling, so you had to determine the sum of the two input numbers, then disect

this sum into its digits, and then print these digits in the reverse order. The string-handling capabilities of the BASIC which is used by more modern minicomputers, as well as microcomputers, makes the problem considerably easier. In addition, the student did a very nice job of setting off the REM statements, as illustrated below. Since he was working on his Apple at home, I have not had to do any translation.

```
10 REM +-----------------+
20 REM ! BACKWARDS ADD. !
30 REM ! BY MARK HUESKE !
40 REM !  10 JUNE 1983  !
50 REM +-----------------+
60 REM
70   INPUT   "PLEASE   GIVE   ME   TWO
NUMBERS,
              SEPARATED BY A COMMA";A,B
80 C = A + B
90 C$ = STR$(C)
100 FOR M = LEN(C$) TO 1 STEP -1
110     PRINT MID$ (C$, M, 1)
120 NEXT M
999 END
```

I was going to just give you the way to decompose a number into its digits, but in looking up my file, I decided that you could used all the notes which I had, that I give to the students about half-way through the first semester. So herewith ...

PROGRAMMING "TRICKS"

1. To sum a group of numbers:

```
10 S = S + A
```

where A is the current value of the variable and S is the partial sum.

2. Test for divisibility:

```
20 IF X/K = INT(X/K) THEN...
```

is true when X is divisible by K.

3. To compute the values after division:

```
30 R = X - INT(X/A)*A
```

makes R the remainder when X is divided by A.

4. To exchange the values of two variables:

```
40 S = 10
50 T = 12
60 W = S
70 S = T
80 T = W
```

Lines 60, 70, and 80 execute the exchange by assigning the value of S to W, T as the new S, and W (old S) as T.

5. To compute small factorials:

```
90 I = 1
100 FOR X = 1 TO N
110 I = I*X
120 NEXT X
130 END
```

Factorial N (N!) will be the final value of I. (Obviously, you must define N before you reach line 100.)

6. To decompose an integer into its digits:

```
160 X = 123
170 A = INT(X/100)
180 B = INT(.1*(X-100*A))
190 C = X - 100*A - 10*B
```

A is the hundreds digit of X; B is the tens digit; C is the units digit.

. . . . .

Since it is now summer vacation, I will give you only one program to work on for this month, but as it has several parts, it should keep you occupied.

Mainframe computers can use tape, as well as disks, for data storage. A mainframe computer of unknown ancestry (but which has 3 burnished spots on its side!) uses tape with the following characteristics:

Length of tape = 1500 metres
Recording density = 750 bytes per centimetre
Reading speed = 300 centimetres per second
Gap between records = 30 millimetres
Time required to change velocity of tape (start or stop it) =
10 milliseconds

Write a program which will determine the amount of information which can be stored on the tape, if the record length is 1500 bytes. Express your answer in "Kilobytes". Determine also the time required to read the entire tape, if the tape has to be stopped between each record.

Suppose this computer were going to be used to store the information for the Encyclopedia (also un-named!). If the length of all this information is

approximately 150 million characters (one character to a byte), how many tape reels would be needed? [If you really want big numbers, how many floppy disks for the Apple would be needed to store this information? One floppy disk can hold 143 K of informaton.]

(P.S. Don't call me during the month - I haven't worked out the answer yet! See you next month.)

Pascalia and Fugue

Pascal Etiquette

A Graceful Way Out

By
Max J. Nareff

The KEYPRESS function offers a convenient way to terminate output, whether to screen or, better yet, to the printer.

```
USES   APPLESTUFF;
(*  For Keypress function *)
(*  Declare the appropriate Variables for
the  File ID's and the filenames and  for
all the others needed. *)
BEGIN
   (*Use Appropriate IOERROR checking*)
   RESET (F,'INPUTFILE.TEXT');
   REWRITE (FP, 'PRINTER:')
   PAGE (OUTPUT);  (* Clear screen *)
   READLN  (F,  ST)  (* Read string  from
input file *)
   WHILE NOT EOF (F)  DO
     BEGIN
      WRITELN (FP,ST); (* Print string *)
    (*  This  is where the  abort  signal
comes in *)
       BEGIN
         READ (CH);
         IF CH = CHR (27) THEN
            BEGIN
              CLOSE  (f)   (*  Close  the
input file *)
              EXIT (PROGRAM)
            END (* IF CHR (27) *)
       END (* IF KEYPRESS *)
     ELSE
       READLN  (F,  ST)  (*  Continue  to
read next lines *)
   END; (* WHILE NOT EOF *)
 CLOSE (F)
etc....
```

Exec File Errors

By
Max J. Nareff

Creating an Exec file using the M(ake command (from the command prompt line) may result in an error, particularly when the terminator symbol is improperly applied. This results in a filename in the Directory which is difficult to remove. The intractable listing appears as follows.

"FILENAME.TEXT - n - 0-??? - nnn TEXT"

Removal may be accomplished by (a) Transferring all the valid files to another diskette; time consuming. (b) Opening and closing the aberrant file, as follows:

```
Program Rubout;
Var F : Text;
Begin
   Rewrite (F,  'FILENAME.TEXT');
   Close (F);
End.
```

An unusual and strang error message results, "ioerror:dup.dir.entry". The Directory will now indicate a normal listing. R(emove the file.

Incidentally, when plagued with the "Nested File Error", apply the terminator key again (usually "%").

Pascal Esoterica

By
Max J. Nareff

The Parameters of the CONCAT function require string variables. Here's how to add a character to a string using the function.

```
PROGRAM CONCATCHAR;
VAR
   S := 'APPLE';
   S  := CONCAT (S,  ' ');  (*  Concat  a
space *)
   CH := 'S';
   S[LENGTH (S) ] := CH;   (* Replace the
space *)
   WRITELN (S);
END.
```

Pascal Beginners

Another Classic Text

by
Max J. Nareff

Joining Luehrmann and Peckham's acclaimed Apple Pascal - A Hands On Approach is an equally impressive newcommer. Prentice-Hall has just issued its Pascal For The Apple, authored by Iain MacCallum from the University of Essex, England. The two books are similar in that most of the programming concepts are demonstrated by means of the Turtlegraphics Unit. Both quickly immerse the reader into the utilitarian intricacies of the Pascal operating system: The editor and the filer.

Over 450 pages in length, MacCallum's precise text soon leads the student through almost all the Apple's version of the Pascal language. Digressions from standard and UCSD pascal are carefully exposed and compared. This is one of the most complete expositions of the language extant, akin to having the Apple reference manuals converted into a giant, easily assimilable tutorial. In this it has no equal.

The author has a unique method of demonstrating the material. He presents a problem in (ordinary) Queen's English and then systematically proceeds to develop a solution. Questions are posed, suggestions and instructions offered and delightfully, answered at the end of each of the 24 detailed chapters. Algorithms literally grow to completion as each construct is melded into the whole.

Following the standard "How to get started" routine, the book is divided into three parts as follows: Part 1 - "The Basic Principles of Programming" (140 pgs.); Part 2 - "Data Types" (180 pgs.); Part 3 - "More Structured Types" (100 pgs.). This is followed by 10 appendices which include reviews or summaries of Turtlegraphics, Pascal operating system, UCSD Pascal strings, Syntax diagrams, Opening multiple files and others. A bibliography and index conclude this truly excellent text.

Notes: Users of 80 column cards may require "software switches" to tune into the graphics algorithms. Where this is difficult, return to the Apples's 40 column mode is indicated. The book which retails for $33 includes a diskette of demo and work programs, many of which appear in the text. The diskette is not necessary to reap any of the many benefits of the book. Potential users should endeavor to purchase the book alone.

Review: VC-Manager

(c) By
Don Scellato

VC-MANAGER is a Visicalc utility program produced by Micro Decision Systems, P.O.Box 1392, Pittsburgh, Pa., 15219. The program allows the user to add, subtract, multiply, divide, or raise to a power any visicalc generated logic or DIF file. This program requires an Apple II+ computer with 48K RAM and at least one DOS 3.3 disk drive. Visicalc is required to create and read the files or templates which are manipulated by VC-MANAGER.

The documentation which accompanies VC-MANAGER is sketchy but is adequate to teach the patient user how to use the program. It describes the operation of the program and leads the user through a couple of examples of the program in operation. The disk containing the program also contains a few short files for manipulation by VC-MANAGER. My experiences with the program using my own test template are presented below.

When I first received a copy of VC-MANAGER I ran it a few times with the material provided by Micro Decision Systems. I then wrote a template which presented the operating results of an imaginary company for three consecutive months. I wanted to use VC-MANAGER to add the three monthly templates together to produce a quarterly report. The three templates are presented below:

TEMPLATE NO.1

	A	B	C
1			
2	XYZ CORP OPERATING STATEMENT		
3	MONTH NO.	1	
4			
5	SALES		
6		TOTAL SALES	25000.00
7		COST OF GDS SOLD	11250.00
8		GROSS PROFIT	13750.00
9			
10	EXPENSES		
11		SALARIES & COMM.	2500.00
12		OCCUPANCY EXPENSE	300.00
13		SELLING & ADVERT.	200.00
14		OTHER EXPENSE	1200.00
15		TOTAL EXPENSES	4200.00
16			
17		PRETAX PROFIT	9550.00
18		TAXES	4775.00
19			
20		NET PROFIT	4775.00

TEMPLATE NO. 2

	A	B	C
1			
2	XYZ CORP OPERATING STATEMENT		
3	MONTH NO.	2	
4			
5	SALES		
6	TOTAL SALES		28000.00
7	COST OF GDS SOLD		12600.00
8	GROSS PROFIT		15400.00
9			
10	EXPENSES		
11	SALARIES & COMM.		2500.00
12	OCCUPANCY EXPENSE		300.00
13	SELLING & ADVERT.		180.00
14	OTHER EXPENSE		1300.00
15	TOTAL EXPENSES		4280.00
16			
17	PRETAX PROFIT		11120.00
18	TAXES		5560.00
19			
20	NET PROFIT		5560.00

TEMPLATE NO. 3

	A	B	C
1			
2	XYZ CORP OPERATING STATEMENT		
3	MONTH NO.	3	
4			
5	SALES		
6	TOTAL SALES		35000.00
7	COST OF GDS SOLD		15750.00
8	GROSS PROFIT		19250.00
9			
10	EXPENSES		
11	SALARIES & COMM.		3500.00
12	OCCUPANCY EXPENSE		300.00
13	SELLING & ADVERT.		250.00
14	OTHER EXPENSE		1800.00
15	TOTAL EXPENSES		5850.00
16			
17	PRETAX PROFIT		13450.00
18	TAXES		6775.00
19			
20	NET PROFIT		6775.00

The first step required to utilize VC-MANAGER to combine a number of separate templates into a single report is to have the VC-MANAGER disk, VisiCalc, and the VisiCalc data disk containing the templates to be combined all available for use. Next, insert the VC-MANAGER disk into your disk drive and boot it up. Booting up can be accomplished from a cold start by turning on the computer with VC-MANAGER in the drive or by using the "PR#--" command. Although Micro Decision Systems says that the program can be booted from VisiCalc by using the "/S Q sequence followed by the slot number of the disk drive containing VC-MANAGER, I have been unsuccessful in getting this method to work. Nonetheless, the other methods work and are quite satisfactory.

When the user boots VC-MANAGER, a Title Screen appears first. This screen is shown below:

```
VC - MANAGER
COPYRIGHT 1982
MICRO DECISION SYSTEMS
```

This screen is quickly replaced by the screen which enables the user to access all of the options contained in the VC-MANAGER program. The second screen is shown below:

```
VC MANAGER 1.1                SERIAL#A-1033
INPUT NAME OF EACH FILE TO BE PROCESSED
--> NEXT FILE ON DISK      ,D2  DRIVE 2
<-- START AGAIN          RETURN    ACCEPT
ESC  BACKSPACE
WITH NO FILE, RETURN=DONE,  ESC=QUIT
NO1
```

At this point, the user has a number of options available to him. First, with a single disk drive, he should remove the VC-MANAGER disk and insert the disk containing the VisiCalc files he wishes to add together. With a two drive system he should first enter ,D2 prior to pressing the right arrow key. Either way, to eliminate any guesswork and to view the catalog of the data disk, the user should press the right arrow key. Each time he encounters a template he wishes to add to another template, he should press return. In the case of the files I wished to add together, I used the following sequence of keys:

Right Arrow until Month 1 Report was found, then Return. Right Arrow till month 2 was found, the Return. Right Arrow until month 3 was found, then Return. Since I wished to add no more templates to the new report I was creating, I next pressed Return instead of the Right Arrow key.

This sequence of keystrokes set up the program to allow the three templates to be added together. When return was pressed, the following screen appeared:

```
NOW SPECIFY OPERATION IN FORMULA
E.G.((1-2)/3) OR (1+2+3)
PROGRAM WILL GIVE CHECKSUM FOR ABOVE
IT WOULD BE -.3333 OR 10 RESPECTIVELY
USE DECIMAL FOR MULTIPLIERS E.G. 100.0

 1 OP STATE MO 1
 2 OP STATE MO 2
 3 OP STATE MO 3
```

The cursor appeared just below the last line, so I entered the following:

```
(1+2+3)
```

and hit the Return key. The program responded with:

```
CHECKSUM = 6
IS THIS CHECKSUM CORRECT (Y/N)
```

I responded with "Y". The program then responded with the following screen:

```
 1 OP STATE MO 1
 2 OP STATE MO 2
 3 OP STATE MO 3

 (1+2+3)

 ARE THESE LOGIC FILES?(Y/N)...Y

 DO YOU WISH TO RETAIN FORMAT (Y/N)..Y

 ACTION ALL ROWS, COLUMNS, CELLS(Y/N)Y
```

Once each of these questions were answered, the following message appeared:

```
-->NEXT FILE ON DISK   ,D2  DRIVE 2
<--START AGAIN         RETURN ACCEPT
ESC BACKSPACE
WITH NO FILE RETURN=DONE   ESC=QUIT
NAME OF FILE TO BE USED AS RESULT
RE:
```

I responded with the cursor in a position right after "RE:" by entering "QTRLY OP STATE" followed by Return. The program repsonded with the following screen:

```
      PROCESSING,PLEASE WAIT

 USE ESC TO QUIT

 ESTIMATED RUN TIME  1 MINS
```

After about one minute, the following message appeared just under the messages mentioned above:

```
 END OF RUN, RERUN VC-MASTER(Y/N)
```

I then removed the VC-MANAGER disk from Drive No 1 and replaced it with VisiCalc. Then I pressed N. VisiCalc was loaded immediately. I then used VisiCalc to load the QTRLY OP STATE file from the VisiCalc data diskette. This report appears below.

TEMPLATE NO. 4

	A	B	C
1		XYZ CORP OPERATING STATEMENT	
2		MONTH NO.	6
3			
4	SALES		
5		TOTAL SALES	88000.00
6		COST OF GDS SOLD	39600.00
7		GROSS PROFIT	48400.00
8			
9	EXPENSES		
10		SALARIES & COMM.	8500.00
11		OCCUPANCY EXPENSE	900.00
12		SELLING & ADVERT.	630.00
13		OTHER EXPENSE	4300.00
14		TOTAL EXPENSE	14330.00
15			
16		PRETAX PROFIT	34070.00
17			
18		TAXES	17035.00
19			
20		NET PROFIT	17035.00

The only operation which was not carried out in a truly proper manner was the totalling of the numbers on Line 2 which designate the month of the report. To remedy this error, there are two options. The first is to instruct the program to exclude cell C2 from the calculations. This option would register the amount in cell C2 as a 1. Then the title in cell A1 could be changed to read QUARTER NO. The second option is to allow the program to compute the amount in cell C2 as a 6 and then change the title in cell A2 to 1ST QTR and the title in B2 to REPORT. The 1 in cell C3 would then need to be blanked out.

The program can also handle the addition, subtraction, multiplication, and division of numeric data in DIF files. When this feature of the program is used, it should be applied to only the sections of a file which contain pure numeric data. If it was used on the templates described above, it would ignore all of the mathematical operators contained in the template and would produce improper totals on lines 7,14,16, and 20. However, if the user has a number of DIF files containing numeric data which he wishes to combine or manipulate prior to inserting the data into a template containing mathematical operators, this feature of the program is just what he needs.

The manual which accompanies VC-MANAGER is adequate. It would be better if it had the user build a few simple files from scratch on VisiCalc and then have him use VC-MANAGER to add, subtract, divide, or multiply the files. The program itself runs well and delivers all that MICRO-DECISION SYSTEMS promises. As you can see from the example shown above, it is easy to use and provides a very convenient utility to the VisiCalc user. I recommend this program very highly to anyone who needs such a tool to supplement VisiCalc.

Interest Groups

Uncle Sami Wants YOU!

by
Sami Capron

In last month's column I made reference to decentralizing the interest groups. Well, at the June General Meeting there was a good response to this idea. Therefore I am soliciting members who would be willing to be group leaders in Marin, East Bay or San Francisco.

It appears that the Apple Core has many bashfull or modest members. When I have approached members to become group leaders, I have received such responses as "WHO ME!", "I'M NOT EXPERIENCED ENOUGH!", "WHAT?!". Well folks I want you to know that I got drafted right out of the crib! And I still don't know too much. Ask anyone who knows me!

What is really required of a group leader is a little bit of time. You must be willing to attend the meetings on a regular basis and encourage others to attend. Basically that's it! So, I am again this month soliciting volunteers. Next month I may be drafting YOU. Contact me at 388-8631. Thanks.

We have several new groups with new group leaders who are doing an outstanding job. Thank you Frank Fennelly (Telecommunications), Reed Harris and Bob Sachs (Marin Graphics). Don Scellato has also expaned his VisiCalc group to the East Bay and is currently setting up a Tax Interest Group.

As some of you may have noticed there was some discrepancy between the Interest Group column and the Calendar! Sorry, we are attempting to correct the problem. If ever in doubt, please contact me or the interest group leader.

There a few changes to note regarding the interest groups. dDbase II is not a club sponsored interest group as such. Applecore members are invited to attend the group, however. The Marin group is open to anyone interested in dBase II. Contact Shirley Anderson (892-0522) for information about dates and time.

The Nu'ers group which meets at 55 Main St. in Tiburon on the second Tuesday of the month at 7:30 P.M., has been discovering more about the Apple II+. Last month guest speaker Michael Fischer talked about the Disk Operating System. At the July meeting he intends to discuss DOS and Text Files. The new users group invites all members interested in learning more about the Apple.

The club is not only interested in sponsoring interests groups but also in encouraging computer education. If you know Pascal, Basic, Forth, Assembly, Logo and/or any operating system and would be willing to teach please let me know ASAP.

Finally, please remember, The CORE needs YOU. Contact Sami Capron before the next General Meeting so we can get your interest heard in the form of an Interest Group.

Telecommunications

June meeting
S.F.A.C. Club house
22 June 1983

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As a result of a number of errors & misunderstandings the June meeting of this group was almost a disaster. Our apologies for the errors and any inconvenience caused as a result. The calendar in the June issue of the Cider press incorrectly indicated that meetings would take place on the 13th & 27th of June instead of the 22th. Further, on the night of the 22th, due to a misunderstanding, we were unable to enter the clubhouse. Dave McGuire saved the day by asking those who turned up over to his office where he gave a demonstration of how his company (Pandair freight) use an Apple II to send & receive telex messages from all over the world. Dave uses a Hayes Micromodem II, a phone line and a software package called Micro-Telegram. With it, you can communicate with any TWX (domestic) or Telex (international) terminal. Dave uses ITT & Western Union as carriers. RCA, TRT Telecommunications & FTC are alternative carriers. This is a fast & inexpensive method of sending printed messages, for example it would cost $3 to send a one page message to London via the ITT network. There is no fee to set up an account with ITT, you only pay for the messages you send. It takes about three weeks to get set up

with them. For more information call Tony Labrasca of ITT at 800-424-1170. Micro-Telegram is published by Microm Inc. Boston 617-762-9310

We still need the names of some European commercial on line Data Bases (such as The Source & Compuserve)

News items.

Control Data Corporation (CDC) is reported to have made a large investment in The Source Telecomputing Corp. It is expected that Cybernet, CDC's large timesharing network will be linked to The Source. CDC owns Commercial Credit Inc. & Ticketron & as a result one can expect to see The Source with Telebanking & online ticketing and reservation services.

American Photronics Inc (Brewster N.Y.) recently announced 64net, a fiber optic Local Area Network designed to interconnect up to 32 personal computers, printers, etc. at a cost of < $300 per connection. The system is capable of transmission rates of up to 19.2k Baud. Fiber optics offer a high bandwith, low losses, lower weight cables & better immunity to electromagnetic interference.

Listed below are the dates of upcomming meetings

27 July - A representative of Novation will demonstrate the Apple Cat, J Cat and Smart Cat modems.

24 Aug - Bob Teicher of Dow Jones will demonstrate the Dow Jones news & information service.

28 Sep - A demonstration of a local area network is being arranged for this date.

VisiCalc'ers

(c) by
Don Scellato

The VisiCalc Interest Group held two meetings in June. The first meeting was held at the Clubhouse on Tuesday, June 14. The second meeting was held in the East Bay at Breuner's Furniture Store on Monday, June 20. A brief overview of Visicalc was given at each meeting for new users of the program. A number of programs which deal with reading and writing to DIF files was tried at each meeting. The next San Francisco meeting will be held at the Clubhouse on Tuesday, July 12 at 7:30 PM. The next East Bay meeting will be held at Breuner's Furniture Store in the second floor meeting room at 7:00 PM on Thursday, July 28. Time will be spent during both of these meetings discussing the manner in which Set Up Commands are used to tell the Epson printer to use special type modes. All attendees are invited to bring any templates they are working on to share these templates with other attendees. Attendees are also invited to bring blank diskettes to copy any templates prepared by other attendees. Anyone wishing to have a particular problem solved or a particular feature of VisiCalc discussed should call Don Scellato at 672-2051 prior to the meeting.

INTERNATIONAL APPLE CORE ™

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July 1983

Monday	Tuesday	Wednesday	Thursday
	5 East Bay 7:30 Forth 7:30		7 Green Apples 8:00
11 Pascal 7:30	12 CP/M 7:30 VisiCalc 7:30 Nu'ers 7:30	13 Marin Graphics 7:30	
	19 Forth 7:30	20 Apple /// 7:30	
25 Pascal 7:30	26 CP/M 7:30 Epson 7:30	27 Telecomm'ns 7:30	28 Green Apples 8:00 VisC-East Bay 7:00

August 1983

Monday	Tuesday	Wednesday	Thursday
	2 East Bay 7:30 Forth 7:30		4 Green Apples 8:00
8 Pascal 7:30	9 CP/M 7:30 VisiCalc 7:30 Nu'ers 7:30	10 Board of Directors 7:00 Marin Graphics 7:30	
	16 Forth 7:30	17 Apple /// 7:30	
22 Pascal 7:30	23 CP/M 7:30 Epson 7:30	24 Telecomm'ns 7:30	25 Green Apples 8:00 VisC-East Bay 7:00

INTEREST GROUP LEADERS

Apple ///	Don Norris	673-7635 (day)
CP/M	Jim Ayers	383-0473(day)
		383-5759(eves)
dBASE II	Shirley Anderson	892-0522(home)
Epson	Michael Fischer	557-1250 (day)
		933-4435(eve)
Forth	Dudley Ackerman	626-6295
Green Apples (BASIC)	Gary Owens	521-4002
Marin Graphics	Reed Harris	924-7221
	Bob Sachs	332-3331
Nu'ers	Sami Capron	388-8631
Pascal	Mike Schnapp	386-2238
Product Review	"Woody" Liswood	585-6375
Telecommunications	Frank Fennelly	(408)984-7321
VisiCalc	Don Scellato	672-2051(eve)

Such a Deal!!

MARKETING DEPARTMENT NOTES
(c) by
Don Scellato

I would like to thank Joe Bianco, Larry Nebron, Arlene Strick, Ben Lai, and Christopher Chung for their continuing support at the Marketing Table at monthly meetings.

The Marketing Department is in the process of placing all disk copying out to competitive bid. The copying service selected to do the Club's work will be selected before the end of June. All bidders were asked to also bid to supply blank disks to Club Members. After receiving most of the bids, it now appears likely that packs of 10 disks in cardboard boxes with labels and write protect tabs will be available to members in August at a price very close to $20 per box. Look for news regarding blank disks in the next issue of the Cider Press.

We are also working on finding disk drives which we can sell for about $225. So far one supplier has indicated that he can supply Daisy Disk Drives for a price which would allow us to sell them for that price. As soon as brochures are available, I will distribute them at a meeting.

We can offer the following programs to Club members at the price shown below in any quantities. If you are interested, fill out the form provided below and bring it in to the next meeting with a 10% non refundable deposit. If you can't make it to the meeting, mail it to me at the Clubhouse. I will place an order on July 16 and will have the product for you at the next meeting.

PRODUCT	MEMBER PRICE
The Graphics Solution	$105+tax
Magicalc	$105+tax
Hi-Res Secrets	$85+tax
The Bank Street Writer	$48+tax
The Home Accountant	$50+tax
Zaxxon	$27+tax
Rendezvous	$27+tax
Shapes in Color	$35+tax
Dark Crystal	$27+tax
Wizardry	$33+tax
PFS:File	$85+tax

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NAME:.....
ADDRESS:.....
CITY:.....ZIP.....
TELEPHONE:.....
PRODUCT:.....PRICE:.....
PRODUCT:.....PRICE:.....
PRODUCT:.....PRICE:.....
PRODUCT:.....PRICE:.....
TOTAL PRICE:.....
TAX:.....
TOTAL DUE:.....
DEPOSIT:.....
DUE ON DELIVERY:.....

If you want a particular piece of hardware or software, we may be able to get it for you at a discounted price. Contact me at the next meeting if you need something.

We will be needing volunteers to work the Sales Table at the Computer Swap Meet at Oakland Convention Center on July 23, 1983. If you can help, please sign up at the next meeting.

As a final note, I discovered after a number of SFAC 1983 Disk No 2 had been sold that two programs didn't work properly. Anyone with this disk should return it at the next meeting to be exchanged for one that works properly or should mail the disk to the Clubhouse. A free copy will be provided to anyone with a bad disk. The "Keyboard Invaders" program and the "Trivia" program do not work properly. Even on the corrected version, "Keyboard Invaders" requires a direct boot from Integer Basic to operate properly. My Apologies!!

What did one modem say to another modem?

"I want your BAUD."

Unclassifieds

ASSISTANCE WANTED

If you are familiar with techniques for storing, manipulating and graphing scientific data and would like to advise/help a fellow club member in doing so with data from physiology and biochemistry experiments, contact Carole Miller, 642-7764 between 9:00 A.M. and 2:00 P.M. or 724-4357 before 10:00 P.M.

FOR SALE

UCSD 4.0 pSystem for Apple II+. Requires 64K of RAM. Includes Turtle Graphics. BRAND NEW. Never used. Manuals in original shrink wrap. $300.00. Contact Jay Villareal 574-7732 between 7:00 & 11:00 P.M.

COMPUTER SWAP MEET

A computer swap meet will be held on Saturday, July 23 from 10:00 A.M. to 5:00 P.M. at the New Oakland Convention Center, West Exhibit Hall, 450 10th St. Oakland. Admission is $5.00. Booth space is also available. For further information call (408) 266-6768

Adopt a School

ADOPT A SCHOOL

As you might have heard, Apple Computer, Inc. is giving an Apple IIe system to every school in the state of California. They have invited the San Francisco Apple Core to participate in their ADOPT A SCHOOL program.

The purpose of this program is to provide the schools with a volunteer resource base to assist them with their initial orientation and set-up.

If you are interested in participating in this program, contact Sami Capron, 388-8631.

Wanted

WANTED: Apple II System or Parts

Are you a local business or individual who wants to trade in your old Apple on a new IIe? If so, consider donating it to the Science Department at Redwood High School, Larkspur. Our students would be very grateful and Uncle Sam would reward you by a suitable reduction in income tax. Your friendly Apple dealer would probably cooperate in this effort to help a local school. I'd like to talk to you even if you are only interested in making a donation, but not a trade in. Contact: John Girton, 15 Del Norte, San Anselmo, CA 94960. Tel: (415) 457-2647.

APPLE CORE OFFERINGS

NOTES

SFAC 1983 DISK NUMBER 1 contains only three programs due to the nature of one of the programs - a hi-res graphics game. This game is called "The Incredible Shrinking Man" which was contributed by the Chiang Brothers. Also included on the disk is a High Score Tabulator and hi-res graphics display program called Gallery.

LIBRARY #1 contains over 340 programs. It is packaged in diskette holders and is bound in a SF Apple Core binder with over 30 pages of documentation. This documentation alone is available for three dollars.

LIBRARY #2 continues the tradition started with Library #1. It contains over 250 programs from the 1980 DOMs.

1981 YEARBOOK contains 12 disks containing all DOM programs from 1981. There is a heavy emphasis on games and business applications.

1983 PROGRAMMING UTILITIES contains a collection of utilities not collected on a single disk before. These utilities come from a variety ofsources such as IAC disks, 1981 DOMs, and 1982 DOMs.

1983 GAME SET consists of two disks containing games not collected in a single set before. It contains a variety of hi-res, lo-res, and text games.

1983 EDUCATION APPLICATIONS is a set of two disks containing interactive learning programs, a grade maintenance program, and GRAMMAR QUEST an interactive learning game.

1983 HOME APPLICATIONS consists of two disks of programs useful around the home. One disk was from the 1982 Home Pak. The second disk is a collection of programs gathered from IAC disks and other recent contributions.

SFAC 1983 DISK 2 - this disk contains a collection of games, home applications, education applications, and utilities.

IACBASE - this is a DataBase Manager provided by the International Apple Core. It is written in run time PASCAL and provides the user with an inexpensive DataBase Manager.

MACHINE LANGUAGE TUTORIAL/UTILITIES - this disk teaches the principles of Machine Language Programming and provides the user with some convenient programming utilities.

PRODUCT	MTG	MAIL
Library #1	98.00	101.50
Library #2	98.00	101.50
1981 Yearbook	98.00	101.50
DOMs		
Mar 82	5.00	7.00
Apr 82	5.00	7.00
May 82	5.00	7.00
COLLECTIONS		
Basic Tutor Pak(3)	20.00	22.00
Forth Pak (3)	20.00	22.00
Game Set (2)	15.00	17.00
Home Applications(2)	15.00	17.00
Education Applic.(2)	15.00	17.00
1983 Prog Util.(1)	10.00	12.00
SFAC Visicalc Temp(1)	10.00	12.00
1983 Visicalc Util(1)	18.00	22.00

All foreign orders: Add 25% to above prices.

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